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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,785	10/27/2003	Nathan J. Lee	PU2180	2784
23454	7590	11/16/2005	EXAMINER	
CALLAWAY GOLF COMPANY 2180 RUTHERFORD ROAD CARLSBAD, CA 92008-7328			HSU, RYAN	
			ART UNIT	PAPER NUMBER
			3714	
DATE MAILED: 11/16/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/605,785		LEE ET AL.	
	Examiner		Art Unit	
	Ryan Hsu		3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-20 and 25-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-20 and 25-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 17, 19, and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Evans (USPN 3,792,863) in view of Allen (USPN 4,940,236).

Claims 17 and 25 are anticipated by Evans' disclosure of a swing measurement system and multi-swing display that comprises of: a diagnostic golf club comprising a club head [14], a shaft attached to the club head (*see FIG 1*), a plurality of strain gauges attached to the shaft [22,24,26], where the strain gauges are used to measure data related to the golf club during a golf swing (*see col. 1: ln 58-col. 2: ln 8*). Furthermore, Evans' invention transmits the respective outputs of the sensors to a nearby "console" (ie: a computer) located in a separate space for processing the data received and stored in a memory device (*see col. 2: ln 9-24*). The strain gauges taught by Evans provides the club with the ability to receive and store temporarily (*enough time to transfer it to the remote console*) the information collected from the swing of the club. Evans' also teaches an interface mechanism that is coupled to the diagnostic golf club for providing communication between the diagnostic golf club and the computer (ie: the FM transmitter (golf club) and receiver (in the console) (*see FIGS. 1[elements 30, 22,24,26], col. 2: ln 32-45*). Finally, Evans' invention allows for a means for transferring the swing load

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measurements to the console. Evan's also teaches an invention with an internal memory device on the console to store data for multiple swings of the diagnostic golf club and then the data is uploaded to the console via the interface mechanism (ie: transmitted from the golf club to the console) (*see FIGS. 1-2[element 52], col. 2: ln 46-56, col. 3: ln 12-19*).

However, Evans lacks in disclosing the use of an internal memory device located in the golf club. Allen teaches in an analogous golf club the use of a distance computer built entirely into a golf club without significantly altering the swing-weight, total weight, feel, or durability of the club. Within Allen's club, an integrated circuit board having an internal memory is mounted in the shaft parallel to the shaft axis (*see FIGS. 12-15, col. 4: ln 10-15, col. 8: ln 1-17*). This integrated circuit board enables the information to be stored temporarily before it is transferred to the main computer or console. Therefore it would have been obvious to one of ordinary skill in the art, at the time of the applicant's invention to combine Allen's golf computer with Evans' system in order to create a computer aided diagnostics system that includes an internal memory device incorporated into a golf club without significantly changing the swing-weight and total experience for the player.

In regard to claims 19 and 26, Evans discloses a device that allows for a golf club to transmit respective outputs of sensors to a nearby console for use of analyzing a golf swing. The use of the device with a golf club is inherent in the art to include the various embodiments of a golf club such as a driver, a fairway wood, an iron, or putter (*see FIGS. 1, col. 2: ln 58-68*).

Regarding claim 27, Evans teaches a diagnostic golf club comprising a club head, a shaft attached to the club head, means for measuring swing loads of a golfer during a golf swing (*see col. 1: ln 58-col. 2: ln 24*). Evans includes a swing load measuring means disposed on the shaft

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in the form of strain gauges. The implementation of Allen's diagnostic golf club implements the elements of a computing device onto the club itself (*see FIGS. 12-15, col. 4: ln 10-15, col. 8: ln 1-17*). This includes the use of memory devices to store the information collected from a swing of the club. Therefore although Evans and Allen teach the claimed invention except for a ring buffer memory they do inherently through the use of a computer teach the implementation of a non-volatile memory device. All computers implement the use of a memory storage device that includes flash memory or random access memory (*ie: RAM*) that are classified as non-volatile memory. Thus it would have been obvious to one having ordinary skill in the art at the time the invention was to implement a ring buffer memory as opposed to a generic RAM chip, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Claim 18 and 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Evans and Allen as applied to claims above, and further in view of Bouton (USPN 5,472,205).

In regards to claims 18 and 20, Evans and Allen discloses a diagnostic golf club that includes an internal memory device, a power control circuit, a signal conditioning circuit for the plurality of strain gauges and a communication circuit (*see FIG. 1, col. 1: ln 58-col. 2: ln 9*). As taught by Allen, circuit board may be fashioned on the surface of a club or within any space where it may fit such as the hollow interior of the shaft (*see FIGS. 12-13*). Additionally, Evans shows in FIG. 1 a schematic of the circuitry that exists in the invention and that its real world application would involve a circuit board designed to enable the features described above.

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Although, Evans in view of Allen does disclose a communication circuit it lacks in disclosing a serial communication embodiment as a means for communicating between the processing console and golf club.

Bouton discloses an analogous video golf system that responds to a user swinging a golf club and a sensing system in order to give feedback to the user. In the Bouton's invention, he teaches the use of a microcontroller and a serial port transmitter to send information to a computer (*see col. 2: ln 31-48*). Bouton teaches that it is possible to send information to a variation of ways one of which is a serial data transmitter (*see col. 5: ln 29-54*). In addition, a serial interface device inherently includes the use of a plurality of pins and receptors to connect one device to another. As a result the implementation of a serial interface device would teach the use of such items when transferring the swing load measurements from the diagnostic golf club to the computer as taught by the prior art. Therefore one would be motivated to modify Evans invention to include a serial interface as a means for transmitting the diagnostic information as an obvious alternative for design choice. It would thereby be obvious to one of ordinary skill at the time of the invention to combine the teachings of Bouton with Evans in order to create a golf diagnostic device using a serial interface communication device to communicate between the golf club and processing console.

Response to Arguments

Applicant's arguments filed 08/08/2005 have been fully considered but they are not persuasive. Applicant argues that Evans and Allen lack in teaching the limitations of the independent claims. However, Allen in fact teaches the use of an internal memory device within the club to store information from a users golf swing (*see col. 8: ln 1-15*). In response to

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applicant's argument that Evan's and Allen implement the internal memory device that is used to store multiple swings of the diagnostic club", a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. However the current claimed invention lacks in distinguishing itself from the prior art of record. Evans implements a diagnostic golf club, which in used with combination of Allen would result in a diagnostic golf club that transmits information from an internal memory device to a separated computer console.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wood (US 6,083,123) – Method of Fitting Golf Clubs for Golfers implements a diagnostic golf club that uses a processor and memory device to help find a club with the right fit for a user.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communication from the examiner should be direct to Ryan Hsu whose telephone number is (571)-272-7148. The examiner can normally be reached on M-F 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl J Tyler can be reached at (571)-272-4834.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, contact the Electronic Business Center (EBC) at 1-866-217-9197 (toll-free).



RH

November 8, 2005



CHERYL TYLER
SUPERVISORY PATENT EXAMINER